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(56) Documents Cited

GB 2083356 A US 4842859 A
WPI Abstract Acc. No. 97-050291 & RU2069698 C1
(CHERKASHINA N A) 1996 WPI Abstract Acc. No.
94-331252 & SU1819619 A (ZAPORO MED. INST.) 1993
WPI Abstract Acc. No. 89-215842 & JP010151504 A
(SHIKOKU CHEM. IND. CO.) 1989 WPI Abstract Acc.
No. 81-13163D & SU741880 B (ZAPORO MED. INST.)
1980 Encyclopaedia of common natural ingredients
used in Food, Drugs and Cosmetics. 1980 pages
302-303 J. Pharm. Sci. Vol. 62 (6) 1973 Ickes G R pages
1009-1011

(58) Field of Search

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(54) **Pharmaceutical compositions containing extracts of Tagetes (Marigolds)**

(57) **Pharmaceutical base preparations comprise extracts of Asteraceae Tagetes, erecta (African Marigold), patula (French Marigold) or signata (Dwarf Marigold) or minuta. Preferably the compositions also contain extracts of any or a combination of the following: Bennis perennis, Hypericum perforatum, Symphytum officinalis, Thuja occidentalis, Thuja plicata, Ruta graveolens, Rosmarinus officinalis or Calendula arvensis. The preparations are particularly intended for the treatment of fungal infections of the nails, skin lesions, or disorders of the bones or joints.**

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A PHARMACEUTICAL PREPARATION

This invention relates to a pharmaceutical base preparation, and to pharmaceutical preparations containing the base preparation. The pharmaceutical preparations are useful in the treatment of lesions of the skin, bones, joints and nails including, for example, hyperkeratosis, dry eczema, psoriasis, inflammatory conditions and viral and fungal infections.

There are numerous topical medicaments and treatments available to practitioners for the treatment of lesions of the skin, bones, joints and nails. There are disadvantages in that some medicaments and treatments are not painless, are invasive and may be palliative or short-term in effect. There may also be painful complications. In addition, some treatments are inappropriate for patients with certain systemic diseases and for patients 'at risk'.

It is an aim of the present invention to provide pharmaceutical preparations useful in the treatment of lesions of the skin, bones, joints and nails, which pharmaceutical preparations are painless, non-invasive and effective in the longer term.

In accordance with a first aspect of the present invention, there is provided a pharmaceutical base preparation comprising flavonoids or glycosides of Asteraceae, the Asteraceae being *Tagetes erecta* orange, yellow or lemon-yellow, *Tagetes minuta*, *Tagetes patula* and *Tagetes signata*.

Preferably, the pharmaceutical base preparation is one in which the proportion of each individual component is 20%.

Preferably, the pharmaceutical base preparation is one in which the ingredients are fresh whole plant material. Preferably, the fresh plant material will be minced fresh plant material.

The pharmaceutical base preparation may include as a solvent 85% strength isopropyl alcohol. The pharmaceutical base preparation may be one in which the proportion of isopropyl alcohol is 20%.

In accordance with a second aspect of the present invention there is provided a pharmaceutical preparation for use in the treatment of skin lesions, which pharmaceutical preparation comprises the pharmaceutical base preparation, caretenoids of Compositae and Hypericeae, and terpenoids of Cupressaceae.

In the second aspect of the invention, the pharmaceutical preparation may be one in which the Compositae is *Bellis perennis* flowerhead or leaf, in which the Hypericeae is *Hypericum perforatum* flowerhead or leaf, and in which the Cupressaceae is *Thuja occidentalis* leaf.

The pharmaceutical preparation may include at least one of isopropyl alcohol, soft white paraffin, arachis oil, aqueous cream and aqueous gel.

Preferably, the pharmaceutical preparation is one in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.

In accordance with a third aspect of the invention, there is provided a pharmaceutical preparation for use in the treatment of bone and joint disorders, which pharmaceutical preparation comprises the pharmaceutical base preparation, alkaloids of Boraginaceae and Rutaceae, and terpenoids of Labiatae.

In the third aspect of the invention, the pharmaceutical preparation may be one in which the Boraginaceae is *Symphytum officinalis* flowerhead or leaf, in which the Rutaceae is *Ruta graveolens* flowerhead or leaf, and in which the Labiatae is *Rosemary officinalis* leaf.

The pharmaceutical preparation may include at least one of isopropyl alcohol, arachis oil and aqueous cream.

Preferably, the pharmaceutical preparation is one in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.

In accordance with a fourth aspect of the present invention, there is provided a pharmaceutical preparation for use in the treatment of fungal infections of nails, which pharmaceutical preparation comprises the pharmaceutical base preparation, terpenoids of Cupressaceae, and terpenoids or carotenoids of Compositae.

In the fourth aspect of the invention, the pharmaceutical preparation may be one in which the Cupressaceae are *Thuja occidentalis* leaf and *Thuja plicata* leaf, and in which the Compositae is *Calendula arvensis* flowerhead or leaf.

The pharmaceutical preparation may include at least one of isopropyl alcohol, arachis oil and aqueous cream.

Preferably, the pharmaceutical preparation is one in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.

The pharmaceutical preparations may have a keralytic, surface analgesic, anti-psoriatic, anti-eczematic, anti-viral, anti-inflammatory and anti-fungal effect and may be used to treat hyperkeratotic lesions, dry eczema, psoriasis, inflammation of the skin, bones and joints, viral infections of the skin and fungal infections of the nails.

The pharmaceutical preparations may be such that the percentage weight or volume of each component in a preparation is from 3% to 10% depending on the form of the preparation.

The pharmaceutical preparations may include:

- a) 3% of extract of minced fresh or powdered dried *Tagetes erecta* orange, yellow or lemon-yellow whole plant;
- (b) 3% of extract of minced fresh or powdered dried *Tagetes minuta* whole plant;
- (c) 3% of extract of minced fresh or powdered dried *Tagetes patula* whole plant;
- (d) 3% of extract of minced fresh or powdered dried *Tagetes signata* whole plant;
- (e) 3% to 5% of extract of minced fresh or powdered dried *Bellis perennis* flowerhead or leaf;

- (f) 3% to 5% of extract of minced fresh or powdered dried *Hypericum perforatum* flowerhead or leaf;
- (g) 3% to 5% of extract of minced fresh or powdered dried *Symphytum officinalis* flowerhead or leaf;
- (h) 3% to 6% of extract of minced fresh or powdered dried *Thuja occidentalis* leaf;
- (i) 5% to 10% of extract of minced fresh or powdered dried *Ruta graveolens* flowerhead or leaf;
- (j) 5% of extract of minced fresh or powdered dried *Rosmarinus officinalis* leaf;
- (k) 3% to 5% of extract of minced fresh or powdered dried *Calendula arvensis* flowerhead or leaf;
- (l) 6% of extract of minced fresh or powdered dried *Thuja plicata* leaf;
- (m) 73% to 76% isopropyl alcohol or arachis oil or soft white paraffin or aqueous cream or aqueous gel.

The pharmaceutical preparations may be such that they include as said flavonoids or glycosides or terpenoids or alkaloids or carotenoids one or more of kaempferol, quercetagerin, thiophene, tagetian, symphytine, carotene, bellisoponin, thujone, thujaplicin, hypericine, borneol and graveoline.

Preferably, the pharmaceutical preparations are in the form of a paste, tincture, oil, ointment, cream or gel. The pharmaceutical preparations may be prepared as a paste with the pharmaceutical base preparation, a tincture with isopropyl alcohol, an oil with arachis oil, an ointment with soft white paraffin, a cream with aqueous cream, or a gel with aqueous gel.

The pharmaceutical preparations of the present invention have the important advantage over known compositions that they are non-invasive, painless and effective in the longer term in resolution of hyperkeratotic lesions, inflammatory conditions of the skin, bones and joints, in relief of pain, in the elimination of viral and fungal infections and in the resolution of psoriatic and eczematic lesions of the skin.

The composition of the invention comprises preferably the flavonoids or glycosides or terpenoids or carotenoids or alkaloids contained in the preferred plants set out in the following table.

Table

Plant family	Latin name of preferred plant	Name of chemical compound
Asteraceae	Tagetes erecta	kaempferol
	Tagetes minuta	quercetagerin
	Tagetes patula	thiophene
	Tagetes signata	tagetiin
Boraginaceae	Symphytum officinalis	symphytine
Compositae	Calendula arvensis	carotene
	Bellis perennis	bellisoponin
Cupressaceae	Thuja occidentalis	thujone
	Thuja plicata	thujaplicin
Hypericeae	Hypericum perforatum	hypericine
Labiatae	Rosemary officinalis	borneol
Rutaceae	Ruta graveolens	graveoline

The pharmaceutical preparations of the present invention may be used in allopathic or homoeopathic or herbal form as topical applications alone or in conjunction with podiatry, including a cavity pad made up of chiropody felt according to the lesion and its location.

The invention will now be described with reference to the following non-limiting Examples.

EXAMPLE 1

The following ingredients were mixed to prepare a pharmaceutical base preparation which is useful in the preparation of a pharmaceutical preparation for the treatment of lesions of the skin, bones and nails.

Minced fresh <i>T. erecta</i> whole plant (orange, yellow or lemon-yellow)	20%
Minced fresh <i>T. minuta</i> whole plant	20%
Minced fresh <i>T. patula</i> whole plant	20%
Minced fresh <i>T. signata</i> whole plant	20%
85% isopropyl alcohol	<u>20%</u>
	<u>100%</u>

EXAMPLE 2

The following ingredients were mixed to prepare a pharmaceutical paste preparation which is useful in the treatment of skin lesions.

Pharmaceutical base preparation according to Example 1	80%
Extract of <i>Bellis perennis</i> flowerhead or leaf	5%
Extract of <i>Hypericum perforatum</i> flowerhead or leaf	5%
Extract of <i>Symphytum officinalis</i> flowerhead or leaf	5%
Extract of <i>Thuja occidentalis</i> leaf	<u>5%</u>
	<u>100%</u>

The pharmaceutical paste preparation was prepared and used as a surface analgesic and a keralytic, anti-eczematic, anti-psoriatic and anti-viral agent in the treatment of hyperkeratotic lesion, dry eczema, psoriasis and viral infections of the skin.

EXAMPLE 3

The following ingredients were mixed to prepare a pharmaceutical tincture preparation which is useful in the treatment of skin lesions.

Extract of <i>T. erecta</i> orange/yellow/lemon-yellow whole plant	3%
Extract of <i>T. minuta</i> whole plant	3%
Extract of <i>T. patula</i> whole plant	3%
Extract of <i>T. signata</i> whole plant	3%
Extract of <i>Bellis perennis</i> flowerhead or leaf	3%
Extract of <i>Hypericum perforatum</i> flowerhead or leaf	3%
Extract of <i>Symphytum officinalis</i> flowerhead or leaf	3%
Extract of <i>Thuja occidentalis</i> leaf	3%
70% isopropyl alcohol	<u>76%</u>
	<u>100%</u>

The pharmaceutical tincture preparation was prepared and used as a surface analgesic and keralytic, anti-eczematic, anti-psoriatic and anti-viral agent in the treatment of skin lesions.

EXAMPLE 4

The ingredients in Example 3, with the exception of isopropyl alcohol which was replaced by arachis oil, were mixed to prepare a pharmaceutical oil preparation which is useful in the treatment of skin lesions and used as a post-treatment emollient.

EXAMPLE 5

The ingredients in Example 3, with the exception of isopropyl alcohol which was replaced by soft white paraffin, were mixed to prepare a pharmaceutical ointment preparation which is useful in the treatment of skin lesions.

EXAMPLE 6

The ingredients in Example 5, with the exception of isopropyl alcohol which was replaced by aqueous cream, were mixed to prepare a pharmaceutical cream preparation which is useful in the treatment of skin lesions.

EXAMPLE 7

The ingredients in Example 5, with the exception of isopropyl alcohol which was replaced by an aqueous gel, were mixed to prepare a pharmaceutical gel preparation which is useful in the treatment of skin lesions.

Case history 1: Skin Condition

A female patient aged 70 suffered for 20 years from painful corn and callosity (hyperkeratosis) in the plantar area of both feet. She was treated with a pharmaceutical paste preparation prepared according to Example 2, a pharmaceutical tincture preparation prepared according to Example 3, and a pharmaceutical oil preparation prepared according to Example 4 for skin conditions in conjunction with protective pad once a week for three weeks. The patient experienced relief of pain within 48 hours and the corn and callosity on both feet completely disappeared within three weeks.

Method of application

The pharmaceutical tincture preparation was first applied to the lesion then the overlying callosity was removed with a scalpel. A protective chiropody felt pad with cavity was placed over the lesion and the pharmaceutical paste preparation was placed in the cavity which was then covered with a piece of micropore followed by adhesive strapping. The dressing remained in place for a week when the treatment was repeated once weekly for three more weeks. As brief immersion in water reactivates the chemicals in the paste, thereby enhancing the therapeutic action, during the treatment period the patient was able to take a bath, but for a few moments only. At the end of the clinical treatment the patient received pharmaceutical oil preparation and pharmaceutical tincture preparation for follow-up home treatment. The tincture was applied first over the treated area following which a few drops of oil were applied by gentle massage during the first week three times a day, the second week twice a day, the third week once a day and, as required, continued three times a week as preventive treatment.

EXAMPLE 8

The following ingredients were mixed to prepare a pharmaceutical paste preparation useful in the treatment of disorders of the bones and joints.

Pharmaceutical base preparation according to Example 1	80%
Extract of <i>Symphytum officinalis</i> flowerhead or leaf	5%
Extract of <i>Ruta graveolens</i> flowerhead or leaf	10%
Extract of <i>Rosmarinus officinalis</i> leaf	<u>5%</u>
	<u>100%</u>

The pharmaceutical paste preparation was prepared and used as a surface analgesic and anti-inflammatory agent in the treatment of disorders of the bones and joints and in particular hallux abducto valgus, hallux rigidus, hallux flexus, gout or any painful, inflamed joint or post-operative complication of surgery.

EXAMPLE 9

The following ingredients were mixed to prepare a pharmaceutical tincture preparation useful in the treatment of disorders of the bones and joints.

Extract of <i>T. erecta</i> whole plant orange, yellow or lemon-yellow	3%
Extract of <i>T. minuta</i> whole plant	3%
Extract of <i>T. patula</i> whole plant	3%
Extract of <i>T. signata</i> whole plant	3%
Extract of <i>Symphytum officinalis</i> flowerhead or leaf	5%
Extract of <i>Ruta graveolens</i> flowerhead or leaf	5%
Extract of <i>Rosmarinus officinalis</i> leaf	5%
70% isopropyl alcohol	<u>73%</u>
	<u>100%</u>

The pharmaceutical tincture preparation was prepared and used as a surface analgesic and anti-inflammatory agent in the treatment of disorders of the bones and joints and in particular hallux abducto valgus, hallux rigidus, hallux flexus, gout or any painful inflamed joint or post-operative complications of surgery.

EXAMPLE 10

The ingredients in Example 9, with the exception of isopropyl alcohol which was replaced by arachis oil, were mixed to prepare a pharmaceutical oil preparation useful as a post-treatment emollient in the treatment of disorders of the bones and joints and in particular hallux abducto valgus, hallux rigidus, hallux flexus, gout or any inflamed joint or post-operative complications of surgery.

EXAMPLE 11

The ingredients in Example 9, with the exception of isopropyl alcohol which was replaced by aqueous cream, were mixed to prepare a pharmaceutical cream preparation which is useful in the treatment of disorders of the bones and joints and in particular hallux abducto valgus, hallux rigidus, hallux flexus, gout or any inflamed joint or post-operative complication of surgery.

Case history: Bone conditions

A male aged 30 suffered from painful hallux abducto valgus and its associated condition bunion. He was treated with a pharmaceutical paste preparation prepared according to Example 8, a pharmaceutical paste preparation prepared according to Example 9, and a pharmaceutical oil preparation prepared according to Example 10 in conjunction with protective chiropody pad once a week for four weeks. He experienced relief of pain within 24 hours and reduction of inflamed soft tissues within four weeks.

Method of application

The pharmaceutical tincture preparation was applied over the bunion and a chiropody cavity pad was placed over it. The cavity was filled with the pharmaceutical paste preparation, covered with a piece of micropore and then strapped with adhesive plaster. The treatment was repeated once a week for four weeks. At the end of four weeks the patient received the pharmaceutical tincture and oil preparations for follow-up home treatment. The pharmaceutical tincture preparation was applied first and then a few drops of oil were applied by gentle massage over the bunion joint, first week three times a day, second week twice a day, third week once a day and therefore as required as a preventive measure.

EXAMPLE 12

The following ingredients were mixed to prepare a pharmaceutical paste preparation useful in the treatment of fungal infections of the nails.

Pharmaceutical base preparation according to Example 1	80%
Extract Calendula arvensis flowerhead and leaf	5%
Extract of Thuja occidentalis leaf	5%
Extract of Thuja plicata leaf	<u>10%</u>
	<u>100%</u>

The pharmaceutical paste preparation was prepared and used as an anti-fungal agent in the treatment of fungal infections of the nails.

EXAMPLE 13

The following ingredients were mixed to prepare a pharmaceutical tincture preparation useful in the treatment of fungal infections of the nails.

Extract of T. erecta whole plant orange, yellow or lemon-yellow	3%
Extract of T. minuta whole plant	3%
Extract of T. patula whole plant	3%
Extract of T. signata whole plant	3%
Extract Calendula arvensis flowerhead or leaf	3%
Extract of Thuja occidentalis leaf	6%
Extract of Thuja plicata leaf	6%
70% isopropyl alcohol	<u>73%</u>
	<u>100%</u>

The pharmaceutical tincture preparation was prepared and used as an anti-fungal agent in the treatment of fungal infections of the nails.

EXAMPLE 14

The ingredients in Example 13, with the exception of isopropyl alcohol which was replaced by arachis oil, were mixed to prepare a pharmaceutical oil preparation useful in the treatment of fungal infections of the nails.

EXAMPLE 15

The ingredients in Example 13, with the exception of isopropyl alcohol which was replaced by aqueous cream, were mixed to prepare a pharmaceutical cream preparation useful in the treatment of fungal infection of the nails.

Case history 3: Fungal infection of nails

A male aged 22 suffered with onychomycosis of the fifth toenail. He was treated with a pharmaceutical tincture preparation prepared according to Example 13 and a pharmaceutical paste preparation for nails prepared according to Example 12 once a week for four weeks followed by home treatment using a pharmaceutical tincture preparation prepared according to Example 13 and a pharmaceutical oil preparation prepared according to Example 14 for four months. The fungus in the nail was completely eliminated and the nail grew normally within eight months from the first treatment.

Method of application

The pharmaceutical tincture preparation was applied to the nail which was reduced using a file. A chiropody cavity pad was placed around the nail and the cavity filled with the pharmaceutical paste preparation, covered with a piece of micropore and strapped with adhesive plaster. At the end of four weeks, the patient received the pharmaceutical tincture preparation and pharmaceutical oil preparation for follow-up home treatment. The pharmaceutical tincture preparation was applied first and then a few drops of pharmaceutical oil preparation by gentle massage, the first week three times a day, second week twice a day, third week once a day and thereafter until the condition was resolved.

CLAIMS

1. A pharmaceutical base preparation comprising flavonoids or glycosides of Asteraceae, the Asteraceae being *Tagetes erecta* orange, yellow or lemon-yellow, *Tagetes minuta*, *Tagetes patula* and *Tagetes signata*.
2. A pharmaceutical base preparation according to claim 1 in which the proportion of each individual component is 20%.
3. A pharmaceutical base preparation according to claim 1 or claim 2 in which the ingredients are fresh whole plant material.
4. A pharmaceutical base preparation according to any one of the preceding claims and which includes as a solvent 85% strength isopropyl alcohol.
5. A pharmaceutical base preparation according to any one of the preceding claims and in which the proportion of isopropyl alcohol is 20%.
6. A pharmaceutical preparation for use in the treatment of skin lesions, which pharmaceutical preparation comprises a pharmaceutical base preparation according to any one of the preceding claims, carotenoids of Compositae and Hypericeae, and terpenoids of Cupressaceae.
7. A pharmaceutical preparation according to claim 6 in which the Compositae is *Bellis perennis* flowerhead or leaf, in which the Hypericeae is *Hypericum perforatum* flowerhead or leaf, and in which the Cupressaceae is *Thuja occidentalis* leaf.
8. A pharmaceutical preparation according to claim 6 or claim 7 and including at least one of isopropyl alcohol, soft white paraffin, arachis oil, aqueous cream and aqueous gel.
9. A pharmaceutical preparation according to any one of claims 6 to 8 in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.

10. A pharmaceutical preparation for use in the treatment of bone and joint disorders, which pharmaceutical preparation comprises a pharmaceutical base preparation according to any one of claims 1 to 5, alkaloids of Boraginaceae and Rutaceae, and terpenoids of Labiatae.
11. A pharmaceutical preparation according to claim 10 in which the Boraginaceae is *Symphytum officinalis* flowerhead or leaf, in which the Rutaceae is *Ruta graveolens* flowerhead or leaf, and in which the Labiatae is *Rosemary officinalis* leaf.
12. A pharmaceutical preparation according to claim 10 or claim 11 and including at least one of isopropyl alcohol, arachis oil and aqueous cream.
13. A pharmaceutical preparation according to any one of claims 10 to 12 in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.
14. A pharmaceutical preparation for use in the treatment of fungal infections of nails, which pharmaceutical preparation comprises a pharmaceutical base preparation according to any one of claims 1 to 5, terpenoids of Cupressaceae, and terpenoids or carotenoids of Compositae.
15. A pharmaceutical preparation according to claim 14 in which the Cupressaceae are *Thuja occidentalis* leaf and *Thuja plicata* leaf, and in which the Compositae is *Calendula arvensis* flowerhead or leaf.
16. A pharmaceutical preparation according to claim 14 or claim 16 and including at least one of the ingredients isopropyl alcohol, arachis oil and aqueous cream.
17. A pharmaceutical preparation according to any one of claims 14 to 16 in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.

18. A pharmaceutical preparation according to any one of claims 6 to 17 and which includes:
- a) 3% of extract of minced fresh or powdered dried *Tagetes erecta* orange, yellow or lemon-yellow whole plant;
 - b) 3% of extract of minced fresh or powdered dried *Tagetes minuta* whole plant;
 - c) 3% of extract of minced fresh or powdered dried *Tagetes patula* whole plant;
 - d) 3% extract of minced fresh or powdered dried *Tagetes signata* whole plant;
 - e) 3% to 5% of extract of minced fresh or powdered dried *Bellis perennis* flowerhead or leaf;
 - f) 3% to 5% of extract of minced fresh or powdered dried *Hypericum perforatum* flowerhead or leaf;
 - g) 3% to 5% of extract of minced fresh or powdered dried *Symphytum officinalis* flowerhead or leaf;
 - h) 3% to 6% of extract of minced fresh or powdered dried *Thuja occidentalis* leaf;
 - i) 5% to 10% of extract of minced fresh or powdered dried *Ruta graveolens* flowerhead or leaf;
 - j) 5% of extract of minced fresh or powdered dried *Rosmarinus officinalis* leaf;
 - k) 3% to 5% of extract of minced fresh or powdered dried *Calendula arvensis* flowerhead or leaf;
 - l) 6% of extract of minced fresh or powdered dried *Thuja plicata* leaf; and
 - m) 73% to 76% isopropyl alcohol or arachis oil or soft white paraffin or aqueous cream or aqueous gel.
19. A pharmaceutical preparation according to any one of claims 5 to 17 and including as said flavonoids or glycosides or terpenoids or carotenoids or alkaloids one or more of kaempferol, quercetageletin, thiophene, tagetiin, symphytine, carotene, bellisoponin, thujone, thujaplicin, hypericine, borneol and graveoline.
20. A pharmaceutical preparation according to any one of the preceding claims 5 to 18 and which is in the form of a paste, tincture, oil, ointment, cream or gel.
21. A pharmaceutical base preparation according to claim 1 and substantially as herein described.

22. A pharmaceutical preparation according to any one of claims 6,10 and 14 and substantially as herein described.



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Amendments to the claim have been filed as follows

1. A pharmaceutical base preparation comprising *Tagetes erecta* orange, yellow or lemon-yellow, *Tagetes minuta*, *Tagetes patula* and *Tagetes signata*.
2. A pharmaceutical base preparation according to claim 1 in which the proportion of each individual component is 20%.
3. A pharmaceutical base preparation according to claim 1 or claim 2 in which the ingredients are fresh whole plant material.
4. A pharmaceutical base preparation according to any one of the preceding claims and which includes as a solvent 85% strength isopropyl alcohol.
5. A pharmaceutical base preparation according to any one of the preceding claims and in which the proportion of isopropyl alcohol is 20%.
6. A pharmaceutical preparation for use in the treatment of skin lesions, which pharmaceutical preparation comprises a pharmaceutical base preparation according to any one of the preceding claims, *Bellis perennis* flowerhead or leaf, *Hypericum perforatum* flowerhead or leaf and *Thuja occidentalis* leaf.
7. A pharmaceutical preparation according to claim 6 and including at least one of isopropyl alcohol, soft white paraffin, arachis oil, aqueous cream and aqueous gel.
8. A pharmaceutical preparation according to claim 6 or claim 7 in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.
9. A pharmaceutical preparation for use in the treatment of bone and joint disorders, which pharmaceutical preparation comprises a pharmaceutical base preparation according to any one of claims 1 to 5, *Symphytum officinalis* flowerhead or leaf, *Ruta graveolens* flowerhead or leaf and *Rosmarinus officinalis* leaf.
10. A pharmaceutical preparation according to claim 9 and including at least one of isopropyl alcohol, arachis oil and aqueous cream.

11. A pharmaceutical preparation according to claim 9 or claim 10 in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.
12. A pharmaceutical preparation for use in the treatment of fungal infection of nails, which pharmaceutical preparation comprises a pharmaceutical base preparation according to any one of claims 1 to 5, *Thuja occidentalis* leaf, *Thuja plicata* leaf and *Calendula arvensis* flowerhead or leaf.
13. A pharmaceutical preparation according to claim 12 and including at least one of the ingredients isopropyl alcohol, arachis oil and aqueous cream.
14. A pharmaceutical preparation according to claim 12 or claim 13 in which the ingredients are in the form of an extract of minced fresh or powdered dried plant material.
15. A pharmaceutical preparation according to any one of claims 6 to 14 and which includes:
 - a) 3% of extract of minced fresh or powdered dried *Tagetes erecta* orange, yellow or lemon-yellow whole plant;
 - b) 3% of extract of minced fresh or powdered dried *Tagetes minuta* whole plant;
 - c) 3% of extract of minced fresh or powdered dried *Tagetes patula* whole plant;
 - d) 3% of extract of minced fresh or powdered dried *Tagetes signata* whole plant;
 - e) 3% to 5% of extract of minced fresh or powdered dried *Bellis perennis* flowerhead or leaf;
 - f) 3% to 5% of extract of minced fresh or powdered dried *Hypericum perforatum* flowerhead or leaf;
 - g) 3% to 5% of extract of minced fresh or powdered dried *Symphytum officinalis* flowerhead or leaf;
 - h) 3% to 6% of extract of minced fresh or powdered dried *Thuja occidentalis* leaf;
 - i) 5% to 10% of extract of minced fresh or powdered dried *Ruta graveolens* flowerhead or leaf;
 - j) 5% of extract of minced fresh or powdered dried *Rosmarinus officinalis* leaf;
 - k) 3% to 5% of extract of minced fresh or powdered dried *Calendula arvensis* flowerhead or leaf;

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- l) 6% of extract of minced fresh or powdered dried Thuja plicata leaf; and
 - m) 73% to 76% isopropyl alcohol or arachis oil or soft white paraffin or aqueous cream or aqueous gel.
16. A pharmaceutical preparation according to any one of the preceding claims 5 to 15 and which is in the form of a paste, tincture, oil, ointment, cream or gel.
17. A pharmaceutical base preparation according to claim 1 and substantially as herein described.
18. A pharmaceutical preparation according to any one of claims 6, 9 and 12 and substantially as herein described.



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Claims searched: 1-22

Examiner: Dr J Houlihan
Date of search: 18 June 1997

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.O): A5B (BE)

Int Cl (Ed.6): A61K 35/78

Other: ONLINE: CAPLUS, NAPRALERT, WPI, CLAIMS, JAPIO

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2083356 (KHAN M T) page 1 lines 12-22; Examples 1-4	1-5
X	US 4842859 (LIU Y) column 2 lines 17-20 & 33-35	1-5
X	WPI Abstract Acc. No. 97-050291 & RU2059698 C1 (CHERKASHINA N A) 1996 See abstract	1 at least
X	WPI Abstract Acc. No. 94-331252 & SU1819619 A1 (ZAPORO MED. INST.) 1993 See abstract	1 at least
X	WPI Abstract Acc. No. 89-215842 & JP010151504 A (SHIKOKU CHEM. IND. CO.) 1989 See abstract	1 at least
X	WPI Abstract Acc. No. 81-13163D & SU741880 B (ZAPORO MED. INST.) 1980 See abstract	1 at least

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.
& Member of the same patent family

A Document indicating technological background and/or state of the art.
P Document published on or after the declared priority date but before the filing date of this invention.
E Patent document published on or after, but with priority date earlier than, the filing date of this application.



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Application No: GB 9604736.0
Claims searched: 1-22

Examiner: Dr J Houlihan
Date of search: 18 June 1997

Category	Identity of document and relevant passage	Relevant to claims
X	Encyclopaedia of Common Natural Ingredients used in Food, Drugs and Cosmetics. 1980 " <i>Tagetes</i> " pages 302-303, especially "Folk Medicine".	1 at least
X	J. Pharm. Sci. Vol. 62 (6) 1973 Ickes G R <i>et. al.</i> " <i>Antitumor activity and preliminary phytochemical examination of Tagetes minuta (Compositae).</i> " pages 1009-1011	1 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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DERWENT-ACC-NO: 1997-427856
DERWENT-WEEK: 200007
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TITLE: Pharmaceutical compositions based on extracts of Tagetes
- are useful
for the treatment of fungal infections, skin lesions, and bone
and joint
disorders

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PATENT-ASSIGNEE: KHAN M T [KHANI]

PRIORITY-DATA: 1996GB-0004736 (March 6, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	
PAGES	MAIN-IPC		
GB 2311009 B	January 26, 2000	N/A	000
A61K 035/78			
GB 2311009 A	September 17, 1997	N/A	022
A61K 035/78			

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
GB 2311009B	N/A	1996GB-0004736
March 6, 1996		
GB 2311009A	N/A	1996GB-0004736
March 6, 1996		

INT-CL_(IPC): A61K035/78; A61P017/00 ; A61P019:00

ABSTRACTED-PUB-NO: GB 2311009A

BASIC-ABSTRACT: Pharmaceutical base composition (A) comprises
Tagetes erecta

(African marigold) orange, yellow or lemon-yellow, Tagetes
minuta, Tagetes
patula (French marigold) and Tagetes signata (dwarf marigold).
Also claimed

are: (1) a pharmaceutical composition (B) for treatment of skin
lesions

comprising (A), Bellis perennis flowerhead or leaf, Hypericum
perforatum

flowerhead or leaf and Thuja occidentalis leaf; (2) a
pharmaceutical

composition for treatment of bone and joint disorders comprising
(A), Symphytum

officinalis flowerhead or leaf, Ruta graveolens flowerhead or leaf and Rosmarinus officinalis leaf; and (3) a pharmaceutical composition for treatment of fungal infection of nails comprising (A), Thuja occidentalis leaf, Thuja pilicata leaf and Calendula arvensis flowerhead or leaf.

USE - The compositions have keralytic, surface analgesic, antipsoriatic, anti-eczematic, anti-viral, anti-inflammatory and anti-fungal effects and are useful in relief of pain and in the treatment of lesions of the skin, bones, joints and nails including e.g. hyperkeratosis, dry eczema, psoriasis, inflammatory conditions and viral and fungal infections. The compositions are in the form of pastes, tinctures, oils, ointments, creams or gels and may be used in allopathic or homeopathic or herbal form as topical applications optionally in conjunction with podiatry, including a cavity pad of chiropody felt.

ADVANTAGE - The compositions are painless, non-invasive and effective in the long-term.

ABSTRACTED-PUB-NO: GB 2311009B

EQUIVALENT-ABSTRACTS: Pharmaceutical base composition (A) comprises Tagetes erecta (African marigold) orange, yellow or lemon-yellow, Tagetes minuta, Tagetes patula (French marigold) and Tagetes signata (dwarf marigold). Also claimed are: (1) a pharmaceutical composition (B) for treatment of skin lesions comprising (A), Bellis perennis flowerhead or leaf, Hypericum perforatum flowerhead or leaf and Thuja occidentalis leaf; (2) a pharmaceutical composition for treatment of bone and joint disorders comprising (A), Symphytum officinalis flowerhead or leaf, Ruta graveolens flowerhead or leaf and Rosmarinus officinalis leaf; and (3) a pharmaceutical composition for treatment of fungal infection of nails comprising (A), Thuja occidentalis leaf, Thuja

pilicata leaf and Calendula arvensis flowerhead or leaf.

USE - The compositions have keralytic, surface analgesic, antipsoriatic, anti-eczematic, anti-viral, anti-inflammatory and anti-fungal effects and are useful in relief of pain and in the treatment of lesions of the skin, bones, joints and nails including e.g. hyperkeratosis, dry eczema, psoriasis, inflammatory conditions and viral and fungal infections. The compositions are in the form of pastes, tinctures, oils, ointments, creams or gels and may be used in allopathic or homeopathic or herbal form as topical applications optionally in conjunction with podiatry, including a cavity pad of chiropody felt.

ADVANTAGE - The compositions are painless, non-invasive and effective in the long-term.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS:

PHARMACEUTICAL COMPOSITION BASED EXTRACT TAGETES USEFUL TREAT
FUNGUS INFECT
SKIN LESION BONE JOINT DISORDER

ADDL-INDEXING-TERMS:

MARIGOLD HYPER-KERATOSIS ECZEMA PSORIASIS

DERWENT-CLASS: B04 C03

CPI-CODES: B04-A08C1; C04-A08C1; B04-A08C2; C04-A08C2; B04-A09A;
C04-A09A;
B04-A09B; C04-A09B; B04-A10B; C04-A10B; B04-A10C; C04-A10C;
B14-A02; C14-A02;
B14-A04; C14-A04; B14-C03; C14-C03; B14-N01; C14-N01; B14-N17;
C14-N17;

CHEMICAL-CODES:

Chemical Indexing M1 *01*

Fragmentation Code

M423 M431 M782 M903 P001 P210 P241 P411 P420 P714

P943 V400 V404 V406

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-136962